**Station 1**

What is the difference between an element and a molecule?

Element:

Atom:

Molecule:

Compound:



**Station 2**

Elements are:

Molecules are:

Compounds are:

**Station 3**

What is H20? (Atom, Element Molecule or Compound)

What if we just had H2? How would we label it? (Atom, Element, Molecule or Compound)

How were the two hydrogen atoms and one oxygen atom combined?

Knowing the answer to the above question lets you know that combining hydrogen and oxygen is what type of reaction?

How many atoms of Carbon are in CO2?

How many atoms of Oxygen are in CO2?

How many atoms of Hydrogen are in H20?

How many atoms of Oxygen are in H20?

Chemical compounds are when:

**Station 4 – Give examples, definitions or other information you know now.**

Elements Compounds

**Station 5**

Formulas are used to show:



Subscript:



Coefficient:



Using the chemical formulas below, label how many atoms of each element are present. Write in complete sentences.

Example: H20 - There are two atoms of hydrogen.  
 There is one atom of oxygen.

CO2 -

NaCl + NaCl-

C6H1206 -

NaHCO3 +C2H4O2 -

2C02 + 02-

3H20 + CH4 –

**Station 6**

What is a chemical equation? (Summarize the information on the site.)

Left side of reaction:

Right side of reaction:

Direction of reaction:

Apply:

If I have C2H4O2 (Vinegar) and NaHCO3 (Baking Soda) combine during a chemical reaction, and then produce NaC2H3O2 and H2O and CO2 (gas and salty tasting solution). How would I write that into a chemical equation?

* Consider the word “and”……what does it usually mean in a mathematical word problem?
* Set up this chemical reaction formula and what it might look like.

Draw this chemical equation landscape wise on a blank piece of copy paper. Label the following components in the chemical reaction below: coefficients, subscripts, reactants, product, direction of reaction, new solution, molecule, compound, element, methane, carbon dioxide, water, oxygen molecule.

**CH4  + 2O2  → CO2  + 2H2O**